

Watervliet Arsenal
Nitro Storehouse
(Building 17, Roads and Grounds Shop)
Arnold Lane south of Dalliba Avenue
Watervliet
Albany County
New York

HAER No. NY-1F

HAER
NY,
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1/17-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20013-7127

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HISTORIC AMERICAN ENGINEERING RECORD

WATERVLIET ARSENAL
NITRE STOREHOUSE
(Building 17, Roads and Grounds Shop)
HAER No. NY-1F

Location: Arnold Lane south of Dalliba Avenue,
Watervliet Arsenal,
Watervliet,
Albany County, New York.
UTM: 18.605898.4730280
Quad: Troy South

Date of Construction: 1830.

Present Owner and Occupant: U.S. Army.

Present Use: Roads and Grounds Shop

Significance: Originally constructed in 1830 as a storehouse
for nitre, this building is one of the oldest and
most highly intact structures at the arsenal.

Historian: Barbara E. Hightower, February 1985.

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PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date of erection: The arsenal's 1910 historical report (Stephenson) lists the date of construction as 1830, but no further documentation substantiating this date was located. The building does appear on the 1845 map of the arsenal (HAER Photo No. NY-1A-79).
2. Architect: Not known. The building was probably designed by Ordnance Department personnel.
3. Original and subsequent owners: U.S. Army
4. Builder, contractor, suppliers: Not known.
5. Original plans and construction: No original plans or drawings were located. The 1845 map shows the building as a rectangular, gable-roofed structure with an intersecting gable at the center of the east side.
6. Alterations and additions: The earliest documented alterations are shown on drawings dated 1918 and 1919 when the south end of the building was converted to a stable. The drawings are in the arsenal's Engineering Division. The double-hung sash in the second, third, and fourth bays of the east elevation were replaced with shorter casement windows. A new opening was cut for a similar window between the second and third bays. A set of double doors at the center of the west elevation shown on the 1919 drawing was removed and the opening filled with brick. A similar opening at the south end of the west side was bricked in at a later date. During the conversion, horse stalls were added along the east wall of the main floor. The stalls have since been removed.

Additional alterations were made to the building at undetermined dates. Louvers in the half-round openings in the north and south gable ends and the basement window on the north end have been removed and the openings bricked in. The building's slate roof was replaced by asphalt shingles at some time after 1919.

B. Historical Context:

From its construction in 1830 until at least 1863, the building appears to have served as a storehouse for nitre, an explosive material used in gunpowder. By 1910, it was a quartermaster

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storehouse and ice house. In 1918 the south end of the structure was converted to a stable, and the ice house remained at the opposite end. The building is now the Roads and Grounds Shop. (For further documentation see HAER No. NY-1A.)

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: While utilitarian, this one-story, gable-roofed, brick structure exhibits an attention to architectural detailing in the use of pilasters and the central, gabled pavilion.
2. Condition of fabric: The building is generally in good condition and is well maintained.

B. Description of Exterior:

1. Over-all dimensions: This one-story, rectangular building measures 140' 3" (nine bay front) x 27' 6" and has a slightly projecting pavilion at the center of the east side. The full basement is above grade on the east and partially above grade on the north and south.
2. Foundations: The foundation walls are random coursed rubble stone. The water table is red sandstone.
3. Walls: Walls are red brick laid in 5/1 common bond. Brick pilasters accent the corners of the building and the pavilion.
4. Structural system, framing: Walls are load bearing. In the basement, a row of eight round 8" cast-iron columns support a 12" x 14" girder running longitudinally along the center of the building (HAER Photo No. NY-1F-5). The columns are spaced approximately 11' 6" on center. Joists are 4" x 12" set 16" on center in the south end of the building and 3" x 12" set 18" on center in the north end. The roof is supported by heavy timber trusses fully exposed in the first floor rooms (HAER Photo No. NY-1F-4).
5. Openings:
 - a. Doorways and doors: There are three doorways at the basement level of the east elevation. The entrance at the north end consists of double-leaf wood doors with boards laid

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diagonally. The corners of the rails, stiles, and muntin are chamfered. The flat lintel is steel. A single four-light, vertical-paneled, wood door with segmental-arch lintel is centered in the pavilion. The south entrance consists of double-leaf, three-light, wood doors with x-bracing under a flat steel lintel. All three sets of doors are set in deep openings with brick jambs.

On the west elevation, a set of heavy double-leaf, eight-light, sliding, wood doors under a flat steel lintel are located in the south end. The doorway at the north end contains double-leaf wood doors that are smaller but similar to the north doors on the east elevation.

- b. Windows: Typical basement windows are one-over-one-light, double-hung wood sash with stone segmental-arch lintels. Typical first story windows are two-over-two-light, double-hung sash with sandstone lug sills and brick segmental-arch lintels. Four short, six-light casement windows with stone lug sills and brick segmental-arch lintels replaced original windows in the second, third, and fourth bays of the east elevation. All three gable ends originally contained half-round openings with stone lug sills and brick surrounds. The east opening is louvered, and the north and south openings have been filled with brick.

6. Roof:

- a. Shape, covering: Asphalt-shingled gable roof with central intersecting gable facing east.
- b. Cornice, eaves: The closed metal eaves have a coved soffit and returns at the gable ends.

C. Description of Interior:

1. Floor plans:

- a. Basement: Entered on the east, the south end of the basement contains an office in the southeast corner, a restroom and caged area along the west wall, and an open space stretching from the south wall to the center of the building. The north end consists of a room the depth of the building on the north and an open space with two single partition walls extending from the west wall. (See supplemental material, floor plan)

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- b. First floor: The first floor is divided into two rooms by a partition wall set latitudinally at approximately the center of the building. (See supplemental material, floor plan)
- 2. Flooring: Floors in the basement are concrete, and those in the first floor are wide tongue and groove boards.
- 3. Wall and ceiling finish: Exterior basement walls are painted stone and partitions are either dry wall or plywood paneling. Ceilings are either dry wall or the exposed joists and flooring of the story above.

First floor exterior walls are brick. The partition wall is horizontal wood siding. The ceiling is open exposing the trusses and wood deck of the roof.

- 4. Openings:
 - a. Doorways and doors: Wood and glass or wood personnel doors.
 - b. Windows: Windows are set in plain wood frames.

D. Site:

The building faces east onto Arnold Lane. Its site slopes downward toward the east providing the only access to the basement. A brick wall accented by brick pilasters and corbelled courses runs north from the northwest corner of the building and curves westward, enclosing the paved lot between Building 17 and the motor pool garage (Building 15, HAER No. NY-1I) on the west.

PART III. SOURCES OF INFORMATION

A. Architectural Drawings:

East Elevation, Alterations to Present Quartermaster Storage and Ice House Changing Same Into Stable. September 23, 1918. Watervliet Arsenal Engineering Division. Illustrates window replacement.

West Elevation and Section. September 24, 1918. Watervliet Arsenal Engineering Division.

Plan of Stable and Ice House. February 15, 1919. Watervliet Arsenal Engineering Division. Shows doors replaced on west side.

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B. Early Views:

View taken from roof of barracks looking northwest toward Seacoast and Field and Siege Gun Shops. 1910. Watervliet Arsenal Museum. (HAER Photo No. NY-1A-82)

C. Bibliography:

1. Primary and unpublished sources:

Stephenson, F. J. "Historical Sketch of Watervliet Arsenal." Watervliet, New York: Watervliet Arsenal, July 1, 1910. Record Group 156, Records of the Office of the Chief of Ordnance, Entry 30025-D, Subentry 227. Navy and Old Army Branch, National Archives, Washington, D.C.

2. Secondary and published sources:

Building Technology, Inc. Historic Properties Report Watervliet Arsenal, Watervliet, New York and Rotterdam Family Housing Area, Rotterdam, New York. January 1985. The report and inventory cards for the arsenal are filed as field records in the Prints and Photographs Division, Library of Congress under HAER No. NY-1A.

D. Likely Sources Not Yet Investigated:

Records of the Office of the Chief of Ordnance, Record Group 156, and Records of the Office of the Chief of Engineers, Record Group 77, Navy and Old Army Branch, National Archives, Washington, D.C. should be further investigated.

E. Supplemental Material:

Basement and First Floor Plan, Roads and Grounds Building, Building No. 17. No date. Watervliet Arsenal Engineering Division. Current floor plan of the building.

Prepared by: Barbara E. Hightower
Historian
MacDonald and Mack Partnership
February 1985

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PART IV. PROJECT INFORMATION

This project was part of a program initiated through a memorandum of agreement between the National Park Service and the U.S. Department of the Army. Stanley H. Fried, Chief, Real Estate Branch of Headquarters DARCOM, and Dr. Robert J. Kapsch, Chief of the Historic American Buildings Survey/Historic American Engineering Record, were program directors. Sally Kress Tompkins of HABS/HAER was program manager, and Robie S. Lange of HABS/HAER was project manager. Under the direction of William A. Brenner, Building Technology Incorporated, Silver Spring, Maryland, acted as primary contractor, and MacDonald and Mack Partnership, Minneapolis, was a major subcontractor. The project included a survey of historic properties at Watervliet Arsenal, as well as preparation of an historic properties report and HABS/HAER documentation for 17 buildings. The survey, report, and documentation were completed by Barbara E. Hightower, historian, Minneapolis. The photographs were taken by Robert A. Ryan and J. Ceronie of Dennett, Muessig, Ryan, and Associates, Ltd., Iowa City, Iowa. Drawings were produced by Gary M. Louris, Minneapolis.

E. Supplemental Material
Floor Plan

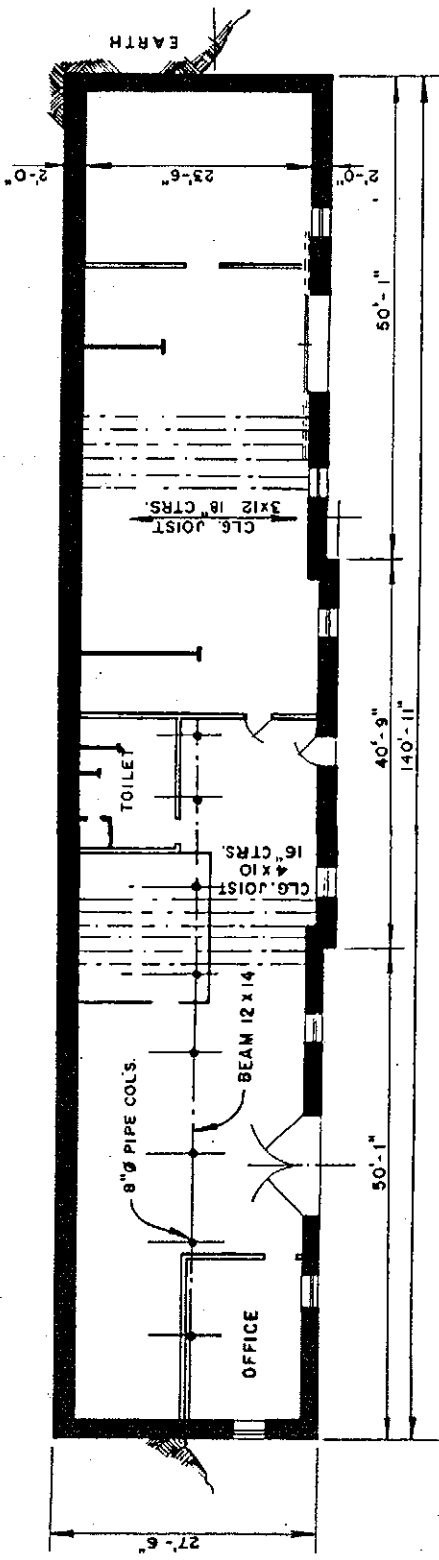
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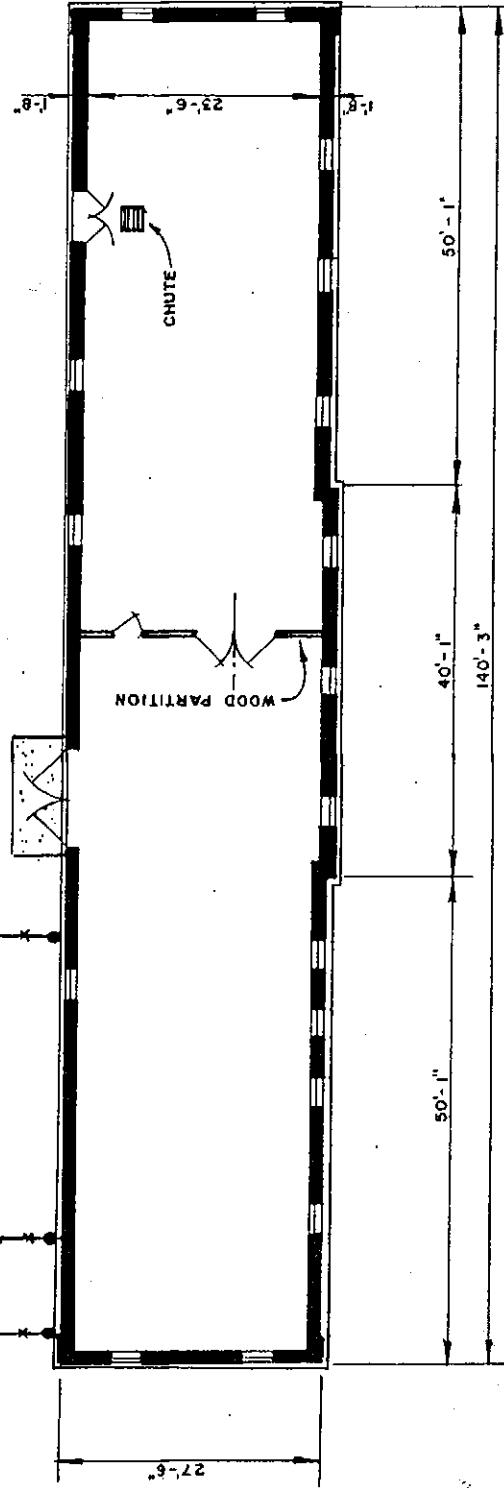
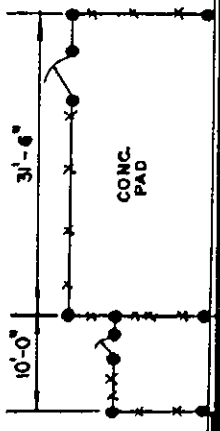
WATERVLIET, N.Y.

Drawn by: J.R. GANGE, A.E. App'd by: J. J. Kenna
Revisions Date 3/72

FIRST FLOOR PLAN
ROADS & GROUNDS BLDG.
BUILDING NO. 17



BASMENT PLAN
CONCRETE FLOOR
STONE WALLS



FIRST FLOOR PLAN
WOOD FLOOR
BRICK WALLS



NET FLOOR AREA	6470
Square feet	
FLOOR CAPACITY	1000 LBS. 75 LBS
Per square foot	